Remarks

Claims 1-16 are pending in the application and were rejected. By this Amendment, claims 1, 3, 4, 6, 7, 9 , 10 and 16 have been amended. Reconsideration of the claims is respectfully requested. No new matter has been added.

Claim Amendments

Claims 1, 3, 4, 6, 7, 9, 10 and 16 have been amended to correct minor grammatical errors.

Rejection Under 35 U.S.C. §112

Claims 6 and 9 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. More specifically, the Examiner stated that "the first extent" and "the second extent" were indefinite. Applicants have amended claims 6 and 9 to eliminate these phrases. Thus, Applicants believe this rejection has been overcome.

Objection to the Specification

The Examiner objected to the specification as failing to provide proper antecedent basis for the claimed subject matter. More specifically, the Examiner stated that there was no antecedent basis for "the first extent" and "the second extent" in the specification. As discussed above, Applicants have amended claims 6 and 9 to eliminate these phrases. Thus, this objection is now believed to be moot.

Rejection Under 35 U.S.C. § 102

Claims 4-6 were rejected under § 102(b) as being anticipated by U.S. Patent No. 4,671,068 issued to Moody et al. (hereinafter "Moody '068"). Applicants respectfully believe that a *prima facie* case has not been established for the following reasons.

Claim 4 requires "monitoring whether the boost pressure sensor has failed". Moody '068 does not disclose or even remotely suggest monitoring whether a boost pressure

sensor has failed. Instead, Moody '068 simply discloses a boost controller 70 having coils 114 and 116 (column 4, lines 27-35 and Figure 2). Coil 114 is energized when a voltage V_d corresponding to a desired manifold boost pressure exceeds a voltage V_a corresponding to an actual boost pressure (column 4, lines 60-66). As such, there is absolutely no disclosure of monitoring whether a boost pressure sensor has failed in Moody '068.

Claim 4 also requires "calculating an adjusted VGT geometry command ... [that] comprises adjusting the feedforward VGT geometry command". Moody '068 does not disclose or even remotely suggest calculating an adjusted VGT geometry command that comprises adjusting a feedforward VGT geometry command. Instead, Moody '068 simply states that coil 114 is energized when a voltage V_d corresponding to a desired manifold boost pressure exceeds a voltage V_a corresponding to an actual boost pressure (column 4, lines 60-66). As such, there is absolutely no calculation of an adjusted value to a feedforward VGT geometry command as required by claim 4.

Claim 4 also requires "setting a VGT geometry according to the adjusted VGT geometry command if the boost pressure sensor has not failed" and "setting the VGT geometry according to the feedforward VGT geometry command if the boost pressure sensor has failed". Moody '068 does not disclose or even remotely suggest these requirements. Moreover, since Moody '068 does not monitor failure of a boost pressure sensor or calculate an adjusted VGT geometry command, it cannot logically set the VGT geometry based on these attributes.

For these reasons, Applicants believe that a *prima facie* case has not been established and respectfully request that this rejection be withdrawn. Since claims 5 and 6 depend on claim 4, Applicants request that the rejection of these claims be withdrawn for the same reasons.

Claims 4-8 and 10 were rejected under § 102(b) as being anticipated by U.S. Patent No. 5,987,888 issued to Weisman, II et al. (hereinafter "Weisman '888"). Applicants respectfully believe that a *prima facie* case has not been established for the following reasons.

First, claim 4 and 7 recite a method for controlling an internal combustion engine having "a variable geometry turbocharger (VGT)" that has an adjustable geometry. Weisman '888 does not disclose or remotely suggest a variable geometry turbocharger having an adjustable geometry. Instead, Weisman '888 is limited to a nonadjustable single or sequential turbocharger system in which a plurality of turbochargers are arranged in sequence and selectively operated (column 1, lines 40-42). Thus, Weisman '888 does not recite a variable geometry turbocharger as required by the present invention.

Second, claims 4 and 7 require "setting a VGT geometry according to the adjusted VGT geometry command" if a boost pressure sensor or a turbo speed sensor has not failed and "setting the VGT geometry according to the feedforward VGT geometry command" if the boost pressure sensor or turbo speed sensor has failed. As previously discussed, Weisman '888 does not disclose or even remotely suggest a variable geometry turbocharger, let alone setting the geometry of a variable geometry turbocharger as required by the present invention. Moreover, Weisman '888 is silent regarding any action taken in response to the failure of either a boost pressure sensor or a turbo speed sensor. Thus, Weisman '888 does not recite a variable geometry turbocharger or making adjustments in response to a sensor failure as required by the present invention.

Third, claims 4 and 7 require "calculating an adjusted VGT geometry command ... [that] comprises adjusting the feedforward VGT geometry command". Weisman '888 does not disclose or even remotely suggest calculating an adjusted VGT geometry command for the feedforward VGT geometry command. Instead, Weisman '888 simply discloses that a turbo overboost fault condition occurs "when the turbo boost pressure exceeds an established active fault threshold value" (column 8, lines 3-5). In response, to a turbo overboost fault the turbo system "is forced into dual turbo mode" (column 8, line 20). There is absolutely no disclosure of calculating any adjustment value, let alone adjusting the feedforward VGT geometry command as required by the present invention.

For these reasons, Applicants believe that a *prima facie* case has not been established and respectfully request that this rejection be withdrawn. Since claims 5-8 and 10 depend on claims 4 and 7, Applicants request that the rejection of these claims be withdrawn for the same reasons.

Even if a proper rejection could be established for claims 4 and 7, a *prima facie* case has not been established for claims 5 and 8. Claims 5 and 8 require that the "feedforward VGT geometry command is calculated from an engine speed and a demanded engine torque." Weisman '888 does not disclose a feedforward VGT geometry command calculated from an engine speed and a demanded engine torque. Instead, Weisman '888 simply discloses a system that "includes a sensing device for monitoring the turbocharger and control logic for determining the dynamic engine torque limit value, determining the provisional engine torque, and limiting the applied torque" (column 2, lines 60-63). There is absolutely no disclosure of any calculation based on an engine speed, let alone an engine speed and a demanded engine torque as required by the present invention. As a result, Applicants respectfully believe that a *prima facie* case has not been established and respectfully request that this rejection be withdrawn.

A *prima facie* case has not been established for claim 6. Claim 6 requires "a variable nozzle turbocharger having movable vanes". Weisman '888 is silent regarding variable nozzle turbocharger having movable vanes. Therefore, Applicants request that this rejection be withdrawn.

A *prima facie* case has not been established for claim 10. Claim 10 requires "limiting a maximum available engine torque if the turbo speed sensor has failed". Weisman '888 is silent regarding failure of a turbo speed sensor or limiting the maximum available engine torque if the turbo speed sensor has failed. Therefore, Applicants request that this rejection be withdrawn.

Conclusion

Applicants have made a genuine effort to respond to the Examiner's objections and rejections in advancing the prosecution of this case. Applicants believe all formal and substantive requirements for patentability have been met and that this case is in condition for allowance, which action is respectfully requested.

Respectfully submitted,

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Date: June 29, 2004

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